What is claimed is:

1. A method of inducing an immune response in an animal comprising administering to said animal an amount of a composition comprising an inactive non-pathogenic virus effective to induce an immune response in said animal.

2. The method of claim 1, wherein the non-pathogenic virus is an insect-specific virus.

3. The method of claim 2, wherein the insect-specific virus is a virus of Baculaviridae family.

4. The method of claim 1, wherein said composition is administered intratumorally, peritumorally, intralesionally, perilesionally, or combinations thereof.

5. The method of claim 1, wherein the inactive non-pathogenic virus comprises a viral particle, or a viral component.

6. The method of claim 5, wherein the viral component is gp64.

7. The method of claim 1, wherein said immune response protects against infectious disease.

8. The method of claim 1, wherein said immune response protects against cancer.

9. The method of claim 1, wherein said immune response induces a T-cell memory response.

10. The method of claim 1 wherein said immune response promotes dendritic cell maturation.

11. The method of claim 7, wherein said infectious disease is a virus, fungi or bacteria.

12. A method of causing cell death in a cell comprising administering a composition comprising an amount of a non-pathogenic virus to said cell effective to cause cell death in said cell.

13. The method of claim 12, wherein the non-pathogenic virus is an insect-specific virus.

14. The method of claim 12, wherein the composition comprising a non-pathogenic virus is effective at a concentration of less than about 500,000 PFU or

about 500,000 PFU Equivalents to cause cell death in greater than about 50% of the contacted cells in an *in vitro* assay.

15. The method of claim 13, wherein the insect-specific virus is a virus of Baculaviridae family.

16. The method of claim 15, wherein the virus of Baculaviridae family is a granulosis virus or a nucleopolyhedrosis virus.

17. The method of claim 16, wherein the nucleopolyhedrosis virus is *Autographa californica* nucleopolyhedrosis virus.

18. The method of claim 12, wherein said cell is a cancer cell.

19. The method of claim 18, wherein said cancer is lung, breast, prostate, colon, gastric, pancreatic, renal, or skin cancer

20. The method of claim 12, wherein said non-pathogenic virus is an inactivated virus, a viral particle, a virosome, a Virus Like Particle, a viral occlusion body, or a viral component.

21. The method of claim 20, wherein said viral component is at least two components of the virus, wherein said components of the virus are selected from the group consisting of a peptide, protein, nucleic acid, lipid or carbohydrate.

22. The method of claim 12, wherein the non-pathogenic virus comprises a membrane protein of a non-pathogenic virus.

23. The method of claim 22, wherein the membrane protein is gp64.

24. The method of claim 12, wherein the non-pathogenic virus is an inactivated virus.

25. The method of claim 24, wherein said inactivation was chemical inactivation, UV inactivation, radiological inactivation, or genetic inactivation.

26. The method of claim 24 wherein said inactivation was psoralen-inactivation, UV-inactivation, or a combination thereof.

27. The method of claim 12, wherein the composition comprising a non-pathogenic virus consists essentially of a virus of Baculaviridae family.

28. The method of claim 12, wherein the composition is co-administered with another agent, wherein said agent is a chemotherapeutic, an anti-cancer drug, a vaccine, or combinations thereof.

29. The method of claim 12 wherein the composition is administered with a second composition, said second composition comprising an antigen and an adjuvant.

30. The method of claim 28 or 29, wherein said composition and agent, or said composition and second composition, are co-administered simultaneously.

31. A method of eliciting a CTL response in an animal comprising administering a composition comprising an amount of a non-pathogenic virus to the animal effective to elicit a CTL response in the animal, wherein said non-pathogenic virus is an insect-specific virus.

32. The method of claim 31, wherein said composition comprising a non-pathogenic virus is effective at a concentration of less than about 500,000 PFU or about 500,000 PFU Equivalents to elicit a CTL response in greater than about 50% of the contacted cells in an *in vitro* assay.

33. The method of claim 31, wherein the animal is a human.

34. The method of claim 31, wherein said insect-specific virus is a virus of Baculaviridae family.

35. A method of inhibiting tumor growth in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic insect-specific virus effective to inhibit tumor growth in said animal.

36. The method of claim 35, wherein said composition comprising a non-pathogenic virus is effective at a concentration of less than about 500,000 PFU or about 500,000 PFU Equivalents to prevent cell growth in greater than about 50% of the contacted cells in an *in vitro* assay.

37. The method of claim 36, wherein said *in vitro* assay is cell growth in soft agar.

38. The method of claim 35, wherein the composition is administered intratumorally and/or peritumorally.

39. The method of claim 35, wherein the animal is a mammal.

40. The method of claim 39, wherein the mammal is a human or a mouse.

41. The method of claim 35, wherein the composition is administered in multiple doses.

42. The method of claim 35, wherein the non-pathogenic virus is an inactivated virus, a viral particle, a virosome, a Virus Like Particle, a viral occlusion body, or a viral component.

43. The method of claim 42, wherein the viral component comprises at least two viral proteins.

44. The method of claim 43, wherein the at least two viral proteins comprise gp64.

45. The method of claim 42, wherein the viral component is gp64.

46. The method of claim 42, wherein the viral component comprises one or more of a nucleic acid, a lipid or a carbohydrate.

47. The method of claim 35, wherein the non-pathogenic virus is an inactivated virus.

48. The method of claim 47, wherein the inactivation was heat-inactivation, chemical inactivation, or UV inactivation.

49. The method of claim 47 wherein said inactivation was psoralen inactivation, UV inactivation, or a combination thereof.

50. A method of treating cancer in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic virus effective to ameliorate cancer symptoms in said animal.

51. The method of claim 50, wherein the composition comprising a non-pathogenic virus is effective at a concentration of less than about 500,000 PFU or about 500,000 PFU Equivalents to prevent cell growth in greater than about 50% of the contacted cells in an *in vitro* assay.

52. The method of claim 50, wherein the non-pathogenic virus is an insect-specific virus.

53. The method of claim 52, wherein the insect-specific virus is a virus of Baculaviridae family.

54. A method of inhibiting cancer metastasis in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic virus effective to inhibit cancer metastasis in said animal.

55. The method of claim 54, wherein the composition comprising a non-pathogenic virus is effective at a concentration of less than about 500,000 PFU or

about 500,000 PFU Equivalents to prevent cell growth in greater than about 50% of the contacted cells in an *in vitro* assay.

56. The method of claim 54, wherein the non-pathogenic virus is an insect-specific virus.

57. The method of claim 56, wherein the insect-specific virus is a virus of Baculaviridae family.

58. A method of imparting resistance to cancer re-challenge in an animal comprising administering to said animal a composition comprising a non-pathogenic virus effective to inhibit cancer re-challenge in the animal.

59. The method of claim 58, wherein the non-pathogenic virus is an insect-specific virus.

60. The method of claim 59, wherein the insect-specific virus is a virus of Baculaviridae family.

61. The method of claim 58, wherein the animal is a human or a mouse.

62. A method of inhibiting a non-neoplastic proliferative disorder in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic virus effective to inhibit a non-neoplastic disorder in the animal.

63. The method of claim 62, wherein the composition is administered intralesionally, perilesionally, or combinations thereof.

64. The method claim 62, wherein the animal is a mammal.

65. The method of claim 64, wherein the animal is a human.

66. A method of inhibiting hyperplasia in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic virus effective to inhibit hyperplasia in said animal.

67. The method of claim 66, wherein the non-pathogenic virus is an insect-specific virus.

68. The method of claim 66, wherein the insect-specific virus is a virus of Baculaviridae family.

69. The method of claim 66, wherein the animal is a human or a mouse.

70. The method of claim 66, wherein the composition is administered intratumorally, peritumorally, intralesionally, perilesionally, or combinations thereof.

71. A method of inhibiting metaplasia in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic virus effective to inhibit metaplasia in said animal.

72. The method of claim 71, wherein the non-pathogenic virus is an insect-specific virus.

73. The method of claim 72, wherein the insect-specific virus is a virus of Baculaviridae family.

74. The method of claim 71, wherein the animal is a human or a mouse.

75. The method of claim 71, wherein the composition is administered via intratumorally, peritumorally, intralesionally, perilesionally, or combinations thereof.

76. A method of inhibiting one or more symptoms of cancer in an individual in need thereof comprising administering to said individual an amount of a composition comprising an amount of a non-pathogenic virus effective to inhibit one or more symptoms of cancer in said individual.

77. The method of claim 76, wherein the non-pathogenic virus is an insect-specific virus.

78. The method of claim 76, wherein the insect-specific virus is a virus of Baculaviridae family.

79. The method of claim 76, wherein the composition is administered intratumorally, peritumorally, intralesionally, perilesionally, or combinations thereof.

80. The method of claim 76, wherein the non-pathogenic virus comprises an inactivated virus, viral particle, or viral component.

81. The method of claim 80, wherein the viral component is gp64.

82. The method of claim 76, wherein the one or more symptoms of cancer are tumor growth, abnormal cell growth, metastasis, angiogenesis, cell death or cell invasiveness.

83. The method of claim 76, wherein the one or more symptoms of cancer are weight loss, bleeding, difficulty in breathing, bone fractures, compromised immune system or fatigue.

84. A method of protecting an animal from an infectious disease comprising administering to said animal an amount of a composition comprising an

inactive non-pathogenic virus effective to protect said animal from an infectious disease.

85. The method of claim 84 wherein said non-pathogenic virus is an insect-specific virus.

86. The method of claim 85 wherein said insect-specific virus is a virus of Baculaviridae family.

87. The method of claim 86, wherein the virus of Baculaviridae family is a granulosis virus or a nucleopolyhedrosis virus.

88. The method of claim 87, wherein the nucleopolyhedrosis virus is *Autographa californica* nucleopolyhedrosis virus.

89. The method of claim 84 wherein said inactivation was one or more of genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation.

90. The method of claim 89 wherein said genetic inactivation is a temperature sensitive mutant.

91. A method of causing cell death in a population of cells comprising contacting a composition comprising an amount of a non-pathogenic virus to a portion of said population of cells effective to cause cell death in said population of cells.

92. The method of claim 91, wherein the non-pathogenic virus is an insect-specific virus.

93. The method of claim 91 wherein said portion of said population of cells is no more than about 30% of said population.

94. The method of claim 91 wherein said portion of said population of cells is no more than about 20% of said population.

95. The method of claim 92, wherein the insect-specific virus is a virus of Baculaviridae family.

96. The method of claim 95, wherein the virus of Baculaviridae family is a granulosis virus or a nucleopolyhedrosis virus.

97. The method of claim 96, wherein the nucleopolyhedrosis virus is *Autographa californica* nucleopolyhedrosis virus.

98. The method of claim 91, wherein said non-pathogenic virus is an inactivated virus, a viral particle, a virosome, a Virus Like Particle, a viral occlusion body, or a viral component.

99. The method of claim 91 wherein the population of cells comprises peripheral blood cells, tumor cells, NK cells or macrophages.

100. A method of treating a disease in a subject in need thereof comprising:

(a) inactivating a non-pathogenic virus, wherein said nonpathogenic virus is inactivated by adding trioxalen to the non-pathogenic virus at a concentration between about 5-10 µg/ml and illuminating said non-pathogenic virus with UV at about 365 nm and about 6W for about 15 minutes;

(b) formulating said inactivated non-pathogenic virus into a pharmaceutical composition; and

(c) administering said pharmaceutical composition to the subject.

101. The method of claim 100, wherein the insect-specific virus is a virus of Baculaviridae family.

102. The method of claim 100 wherein the disease is cancer or an infectious disease.

103. A method of predicting *in vivo* anti-tumor activity of a compound comprising:

a) contacting the compound with tumor cells and peripheral blood mononuclear cells; and

b) measuring cell death of said tumor cells;

wherein compounds that cause cell death of contacted tumor cells are predicted in be active *in vivo*.

104. The method of claim 103 wherein said compound is an inactivated virus, a viral particle, a virosome, a Virus Like Particle, a viral occlusion body, or a viral component.

105. The method of claim 103 wherein said compound is derived from the baculoviridae family.

106. The method of claim 103 wherein said compound is an insect specific virus.

107. The method of claim 103, wherein said tumor cells are A549 cells, 3LL-HM cells, 4T1 cells, MT901 cells, MAT BIII cells, B16 melanoma cells or MG-63 cells.

108. A method of inhibiting an infectious disease in an animal comprising administering to said animal an amount of a composition comprising a non-pathogenic virus effective to inhibit the infectious disease in said animal.

109. The method of claim 108, wherein the non-pathogenic virus is an insect-specific virus.

110. The method of claim 109, wherein the insect-specific virus is a virus of Baculaviridae family.

111. The method of claim 110, wherein the virus of Baculaviridae family is a granulosis virus or a nucleopolyhedrosis virus.

112. The method of claim 111, wherein the nucleopolyhedrosis virus is *Autographa californica* nucleopolyhedrosis virus.

113. The method of claim 108, wherein said non-pathogenic virus is an inactivated virus, a viral particle, a virosome, a Virus Like Particle, a viral occlusion body, or a viral component.

114. A pharmaceutical composition comprising a non-pathogenic virus and a pharmaceutically acceptable carrier.

115. The pharmaceutical composition of claim 114 wherein said non-pathogenic virus is an inactive virus.

116. The pharmaceutical composition of claim 114 wherein said non-pathogenic virus is an insect-specific virus.

117. The pharmaceutical composition of claim 116 wherein said insect-specific virus is a virus of Baculaviridae family.

118. The pharmaceutical composition of claim 117, wherein the virus of Baculaviridae family is a granulosis virus or a nucleopolyhedrosis virus.

119. The pharmaceutical composition of claim 118, wherein the nucleopolyhedrosis virus is *Autographa californica* nucleopolyhedrosis virus.

120. The pharmaceutical composition of claim 114 wherein said non-pathogenic virus is an inactive virus.

121. The pharmaceutical composition of claim 120 wherein said inactivation was one or more of genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation.

122. The pharmaceutical composition of claim 121 wherein said inactivation was at least two of genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation.

123. The pharmaceutical composition of claim 121 wherein said genetic inactivation is a temperature sensitive mutation.

124. A pharmaceutical composition comprising a non-pathogenic virus inactivated by at least two different methods.

125. The pharmaceutical composition of claim 124, wherein said virus was inactivated by at least three different methods.

126. A pharmaceutical composition comprising a non-pathogenic virus and a carrier wherein said carrier is a liposome, a virus like particle, a virosome or a protein delivery vehicle.

127. The pharmaceutical composition of claim 126 wherein said virus is inactive.

128. The pharmaceutical composition of claim 124, wherein said inactivation is least two different methods selected from the group consisting of genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation.

129. The pharmaceutical composition of claim 125, wherein said inactivation is at least three different methods selected from the group consisting of genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation.

130. A pharmaceutical composition comprising a non-pathogenic virus, said non-pathogenic virus inactivated using two or more methods selected from the group consisting of genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation, and at least one PBMC.

131. The pharmaceutical composition of claim 130 further comprising at least one cancer cell.

132. A process for preparing an anti-cancer or anti-infectious disease composition comprising a non-pathogenic virus, said process comprising:

(a) exposing the virus to a first inactivator effective to inactivate an active virus;

(b) exposing said virus to a second inactivator effective to inactivate an active virus;

(c) combining said virus with one or more pharmaceutically acceptable carriers or excipients; and

(d) confirming inactivity of said virus in an *in vitro* assay.

133. The process of claim 132 further comprising collecting a random portion of said anti-cancer composition for analysis of one or more of safety, efficacy, or toxicity.

134. The process of claim 133 wherein said first inactivator is genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation.

135. The process of claim 133 wherein said second inactivator is genetic inactivation, chemical inactivation, photochemical inactivation, UV-light inactivation, heat inactivation, or radiological inactivation, with the proviso that the first inativator is not the same as the second inactivator.

136. The process of claim 133 further comprising comparing one or more of safety, efficacy, or toxicity of said random portion of said anti-cancer or anti-infectious disease composition to historical data of safety, efficacy, or toxicity of a second anti-cancer composition.

137. The process of claim 132 wherein the inactivity of the virus is confirmed by plaque formation assay.

138. The process of claim 137 wherein said plaque formation assay is performed with Sf9 cells.

139. The process of claim 132 further comprising counting non-pathogenic virus using EM.

140. The process of claim 132 wherein confirmation of the inactivity of said virus is performed after each of (a) and (b).

141. The process of claim 136 wherein the results of said comparison are required to be compiled prior to the release of said an anti-cancer or anti-infectious disease composition.

142. The method of any one of claims 1, 12, 31, 35, 50, 54, 58, 62, 66, 71, 76, 84, 91, or 108 wherein said non-pathogenic virus is formulated as a pharmaceutical composition.

143. A pharmaceutical composition comprising an inactivated non-pathogenic virus and at least one antigen, wherein the antigen is distinct from the inactivated non-pathogenic virus, and at least one adjuvant.

144. An immunostimulating composition comprising an adjuvant composition, said adjuvant composition comprising an inactivated non-pathogenic virus, at least one antigen, wherein said antigen is distinct from the adjuvant composition, and further wherein said immunostimulating composition is capable of increasing the immune response to the antigen.

145. The immunostimulating composition of claim 144 wherein said inactivated non-pathogenic virus comprises a viral particle, a virosome, a Virus Like Particle, a viral occlusion body, or a viral component.

146. The method of claim 18 wherein said cancer cell is an epithelial cancer cell.

147. A pharmaceutical composition comprising a non-pathogenic virus and a peripheral blood mononuclear cells (PBMCs).

148. A method of treating cancer comprising administering the pharmaceutical composition of claim 147 to an individual in need thereof.